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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,932	05/19/2006	Rifat Ata Mustafa Hikmet	NL 031366	3704

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
P.O. BOX 3001  
BRIARCLIFF MANOR, NY 10510

EXAMINER

CHAPEL, DEREK S

ART UNIT	PAPER NUMBER
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2872

MAIL DATE	DELIVERY MODE
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08/06/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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**Office Action Summary**

Application No.

10/579,932

Applicant(s)

HIKMET ET AL.

Examiner

Derek S. Chapel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 May 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 5/19/06 & 5/22/07 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status Of Claims***

1. This Office Action is in response to an amendment received 5/22/2007 in which Applicant lists claims 1-10 as being currently amended and claims 11-13 as being new. It is interpreted by the examiner that claims 1-13 are pending.

### ***Drawings***

2. The replacement drawings and amendments to the specification were received on 5/22/2007. These drawings and amendments are accepted. The objections to the drawings cited in the office action mailed 2/22/2007 are hereby withdrawn.

### ***Specification***

3. The amendments to the specification dated 5/22/2007 are accepted. The objections to the specification cited in the office action mailed 2/22/2007 are hereby withdrawn.

### ***Claim Objections***

4. The amendments to the claims dated 5/22/2007 are accepted. The objections to the claims cited in the office action mailed 2/22/2007 are hereby withdrawn.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Faris et al., International Publication Number WO 98/38547, of record (hereafter Faris).

7. As to claim 1, Faris teaches a polarizing mirror for viewing purposes (see page 7, line 25 through page 11, line 17) having a first plane reflecting light of a first kind of polarization to a viewing side (see figures 1A and 1B, figures 10, 10A-10F, elements 22A and  $\lambda$ LHCP, figures 14, 14A-14H, elements 28A and  $\lambda$ LHCP, page 34, line 21 through page 35, line 12, page 54, lines 4 through page 59, line 22, and pages 63-65), the polarizing mirror passing light of a second kind of polarization (see figures 1A and 1B, figures 10, 10A-10F, elements 22A and  $\lambda$ RHCP, figures 14, 14A-14H, elements 28A and  $\lambda$ RHCP) and being provided with a display device at its non-viewing side (see the  $\lambda$ LHCP and  $\lambda$ RHCP light incident on element 22B from the bottom in figures 10E and 10F and the  $\lambda$ LHCP and  $\lambda$ RHCP light incident on element 28B from the bottom in figures 14E and 14G as well as page 91, line 25 through page 92, line 8), which display device during use provides light of the second kind of polarization (see the  $\lambda$ RHCP light incident on element 22B from the bottom in figures 10E and 10F and the  $\lambda$ RHCP light incident on element 28B from the bottom in figures 14E and 14G), the polarizing mirror being switchable between a state passing light of the second kind of polarization and

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reflecting light of the first kind of polarization (see figure 10E, element 22A and figure 14A, element 28A) and a state passing light of both kinds of polarization (see figure 10F, element 22A and figure 14C, element 28A) the polarizing mirror having at the non-viewing side, a switchable polarizer between the display device and the polarizing mirror (see figures 10, 10A-10F, element 22B and figures 14, 14A-14H, element 28B).

8. As to claim 2, Faris teaches the combination of claim 1, having at the non-viewing side between the display device and the polarizing mirror a switchable polarizer being switchable between a state passing light of the first kind of polarization and reflecting light of the second kind of polarization (see figure 14E, elements 28B,  $\lambda$ RHCP and  $\lambda$ LHCP) and a state passing light of both kinds of polarization (see figure 14G, elements 28B,  $\lambda$ RHCP and  $\lambda$ LHCP).

9. As to claim 3, Faris teaches the combination of claim 1, wherein the switchable polarizer is switchable between a state passing light of the second kind of polarization and reflecting light of the first kind of polarization (see figure 10E, elements 22B,  $\lambda$ RHCP and  $\lambda$ LHCP) and a state passing light of both kinds of polarization (see figure 10F, elements 22B,  $\lambda$ RHCP and  $\lambda$ LHCP), the polarizing mirror comprising a retarding layer being provided between the polarizing mirror and the switchable polarizer (see figures 10E and 10F, element 21), wherein the retarding layer is configured to change the polarization of light from the first kind of polarization into the second kind of polarization (see figures 10E and 10F, element 21 and  $\lambda$ RHCP and  $\lambda$ LHCP) or change the polarization of light from the second kind of polarization into the first kind of polarization (see figures 10E and 10F, element 21 and  $\lambda$ RHCP and  $\lambda$ LHCP).

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10. As to claim 4, Faris teaches the combination of claim 3, wherein the retarding layer comprises a  $\frac{1}{2} \lambda$  foil,  $\lambda$  having a value of 500 – 600 nm (see figures 2E1-2E3, 10 and 10A-10F, element 21, figures 11A1 and 11A2, pages 21 and 22 and page 34, line 25 through page 35 line 12; it is noted that the CLC material making up the center of the retarding layer can convert polarization states from linear-to-linear and circular-to-circular which, by definition, is acting as a  $\frac{1}{2} \lambda$  plate).

11. As to claim 5, Faris teaches the combination of claim 1, the polarizing mirror and switchable polarizers being cholesteric polarizers (see figures 10, 10A-10F, elements 22A and 22B, figures 14, 14A-14H, elements 28A and 28B, page 34, line 21 through page 35, line 12, page 54, lines 4 through page 59, line 22, and pages 63-65).

12. As to claim 6, Faris teaches the combination of claim 5, the display device comprising a partial display emitting polarized light having at the emitting side a  $\frac{1}{4} \lambda$  foil,  $\lambda$  having a value of 500 – 600 nm (see figures 2E1-2E3, 10 and 10A-10F, element 22B, figures 11A1 and 11A2, pages 21 and 22 and page 34, line 25 through page 35 line 12; it is noted that element 22B could be considered a  $\frac{1}{4} \lambda$  foil at the emitting side of the display device since it is at the emitting side of the display device, the CLC material making up element 22B can convert polarization states from linear-to-circular and circular-to-linear which, by definition, is acting as a  $\frac{1}{4} \lambda$  plate, and all of the light passing through element 22B in figure 10E is  $\lambda$ RHCP).

13. As to claim 7, Faris teaches the combination of claim 5, the display device comprising a partial display emitting non-polarized light having at the emitting side, a  $\frac{1}{2} \lambda$  foil,  $\lambda$  having a value of 500 – 600 nm (see figures 2E1-2E3, 10 and 10A-10F, element

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22B, figures 11A1 and 11A2, pages 21 and 22 and page 34, line 25 through page 35 line 12; it is noted that element 22B could be considered a  $\frac{1}{2} \lambda$  foil at the emitting side of the display device since it is at the emitting side of the display device, the CLC material making up element 22B can convert polarization states from linear-to-linear and circular-to-circular which, by definition, is acting as a  $\frac{1}{2} \lambda$  plate, and all of the light passing through element 22B in figure 10F is both  $\lambda$ RHCP and  $\lambda$ LHCP which is non-polarized light).

14. As to claim 8, Faris teaches the combination of claim 4, the retarding layer having a double layer comprising a retarder with a negative birefringence (see figures 2E1-2E3 and pages 34-35 and 39-41).

15. As to claim 9, Faris teaches the combination of claim 1, having a bandwidth of at least 50nm (see figures 11A1 and 11A2, pages 21 and 22).

16. As to claim 10, Faris teaches the combination of claim 1, reflecting in the visible range of the spectrum (see figures 11A1 and 11A2, pages 21 and 22 and page 34, line 21 through page 35, line 12, page 54, lines 4 through page 59, line 22, and pages 63-65).

17. As to claim 11, Faris discloses an LCD device (see page 91, line 25 through page 92, line 8) positioned next to a  $\frac{1}{4} \lambda$  foil (see figures 2E1-2E3, 10 and 10A-10F, element 22B, figures 11A1 and 11A2, pages 21 and 22 and page 34, line 25 through page 35 line 12; it is noted that element 22B could be considered a  $\frac{1}{4} \lambda$  foil at the emitting side of the display device since it is at the emitting side of the display device, the CLC material making up element 22B can convert polarization states from linear-to-

circular and circular-to-linear which, by definition, is acting as a  $\frac{1}{4} \lambda$  plate, and all of the light passing through element 22B in figure 10E is  $\lambda$ RHCP).

***Claim Rejections - 35 USC § 103***

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

20. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).



21. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Faris et al., International Publication Number WO 98/38547, of record (hereafter Faris).

22. As to claim 13, Faris discloses the claimed limitations of claim 1. Faris does not specifically disclose that an area of the display unit is smaller than an area of the first plane. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make an area of the display unit smaller than an area of the first plane, since such a modification would involve only a mere change in size of a component. Scaling up or down an element which merely requires a change in size is generally considered as being within the ordinary skill in the art. One would have been motivated to scale the size of the display unit in order to meet the design requirements of the system. For instance, the first plane may extend across the entire surface of the mirror or the 3D viewing glasses taught by Faris (see page 91 of Faris) and the display would only need to occupy the area inside the first plane that is to be viewed by the observer. (*In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976))

***Allowable Subject Matter***

23. Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

24. The following is a statement of reasons for the indication of allowable subject matter:

Claim 12 would allowable over the cited art of record, if rewritten in independent form including all of the limitations of the base claim and any intervening claims, for at least the reason that the cited art of record fails to teach or reasonably suggest the polarizing mirror wherein the switchable polarizer is positioned between a  $\frac{1}{4} \lambda$  foil and a  $\frac{1}{2} \lambda$  foil, as generally set forth in claim 12, the device including, in combination with the features recited in claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

25. Applicant's arguments filed 5/22/2007 have been fully considered but they are not persuasive. The arguments pertaining to the rejection of claim 1 under 35 USC 102(b) in view of Faris are not persuasive because Faris clearly discloses a switchable polarizer (see figures 10, 10A-10F, element 22B and figures 14, 14A-14H, element 28B) between the display device (see the  $\lambda$ LHCP and  $\lambda$ RHCP light incident on element 22B from the bottom in figures 10E and 10F and the  $\lambda$ LHCP and  $\lambda$ RHCP light incident on element 28B from the bottom in figures 14E and 14G as well as page 91, line 25 through page 92, line 8 which disclose mounting the structure of Faris on an LCD viewing panel) and the polarizing mirror (see figures 1A and 1B, figures 10, 10A-10F, elements 22A and  $\lambda$ LHCP, figures 14, 14A-14H, elements 28A and  $\lambda$ LHCP, page 34,

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line 21 through page 35, line 12, page 54, lines 4 through page 59, line 22, and pages 63-65).

### ***Conclusion***

26. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

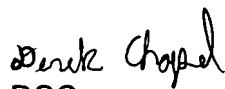
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derek S. Chapel whose telephone number is 571-272-8042. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
DSC  
7/26/2007

  
Stephone B. Allen  
Supervisory Patent Examiner

REPLACEMENT SHEET  
PATENT APPLICATION SERIAL No. 10/579,932  
REPLY TO OFFICE ACTION OF FEBRUARY 27, 2007

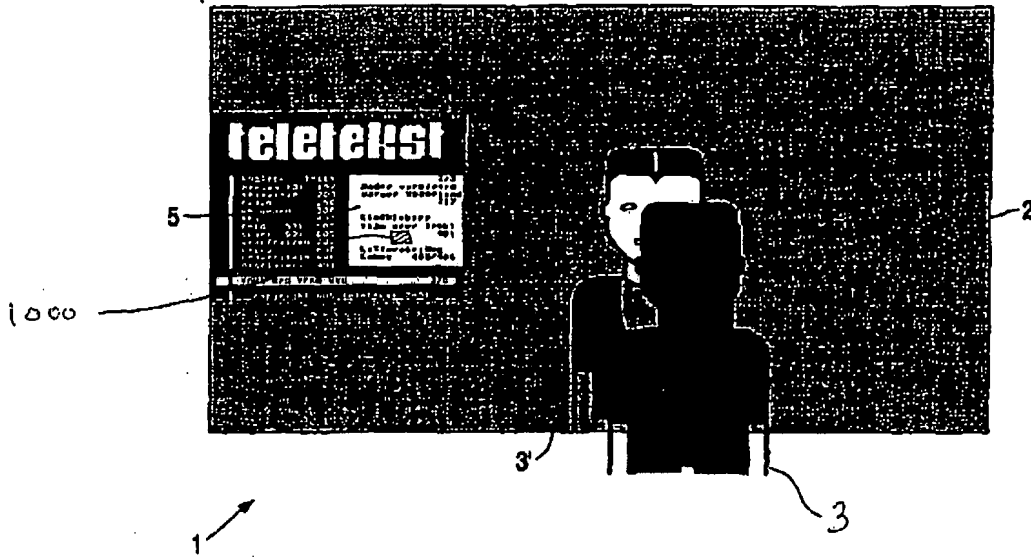


FIG. 1

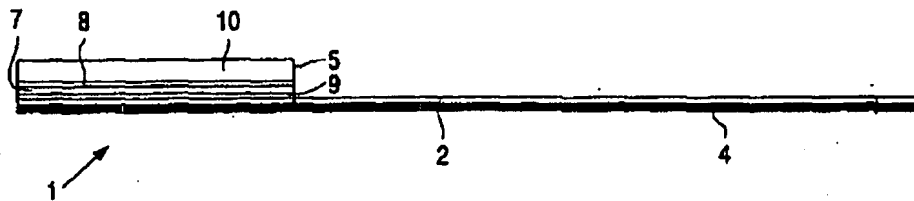


FIG. 2